

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001002**Date Inspected:** 07-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	N/A			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Bay1- #1 Deck Mock-up and #2 Weld Trial**Summary of Items Observed:**

Bay 1 operations: The Caltrans Quality Assurance (QA) Inspector, John P. Tracy, had the following list of activities to report:

Alignment verification for closed U-ribs on #1 deck mock-up. Connection plates had not been removed for this operation so Mr. Robert Cuellar and the QA Inspector verified bolt hole alignments and splice plate faying surfaces. With the U-ribs facing downwards all accessible bolt holes were checked with galvanized temporary bolting. Each accessible hole received the bolt freely with no issues noted. Connection plates were in place and each surface examined were fayed tight. No visible indications of damage or discrepancies were noted at the time of the inspection.

Mr. Cheng Wen, Mr. Robert Cuellar, Mr. Pat Lowry, Mr. David McClary and the Caltrans QA Inspector identified and marked up selected areas of lack of penetration (LOP), excessive reinforcement, underfill and overlap, on the PJP welds, for macro etch sampling. LOP areas were identified via UT angle beam inspection. Weld joints #1 and #2, on U-rib #73, was slated for removal and to be split in half and will be examined for various areas of macro etch sample removal at a later date. Six separate samples were selected for removal, on each weld joint, for U-ribs U-10, U-75, U-02 and U-05.

Bay 2 operations: The Caltrans QA Inspector observed the following list of activities:

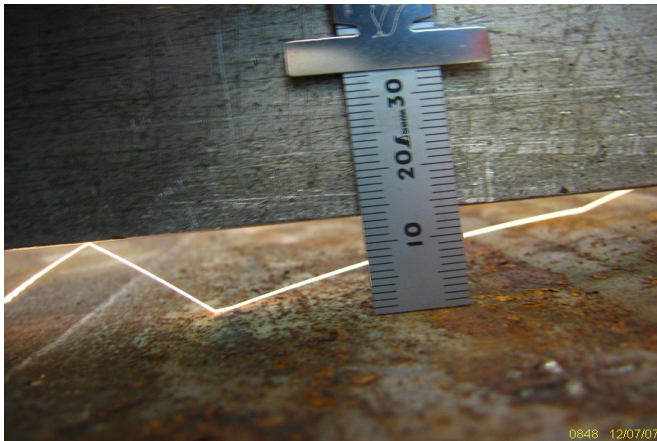
Observed Heat straightening operations for MUSB-MA22-89m Tower Mock-up. ZPMC was working to HSR1(CT) 164. ZPMC QC inspector was on site and checked temperatures throughout the process while the QA Inspector observed. Temperature indicator for 593 degrees C did not melt even though pyrometer temperatures

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were viewed between 350-595 degrees C. A deflection of 14mm was noted at the beginning of this operation. The HSR report indicated a repair for "about 7 mm". ABF inspector, Jeff Evans, was notified of the findings and he relayed that 14mm was a definite nonconforming issue. Further action is pending by ZPMC and ABF. Several areas of heat straightening are apparent. It appears that heat straightening operations are a normal part of the manufacturing process based on daily observations.

Electrode Storage Room- The weld issue logs are still written in Chinese characters after several attempts to rectify them. Temperatures appear to be within parameters for storage.



Summary of Conversations:

The QA Inspector had a conversation with ABF inspector, Jeff Evans, about the deflection noted for HSR1(CT)-164 for MUSB-MA22, 89m Tower Mock-up. As stated above he agreed with the QA Inspector's findings and stated that it was a definite nonconforming issue. Further action is pending by ZPMC and ABF.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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Inspected By:	Tracy,John	Quality Assurance Inspector
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Reviewed By:	Cuellar,Robert	QA Reviewer
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